

in his pocket. How with this he ^{tried} ^{experiments} ^{8x}
came back to that lucky Liverpool Merchant, ^{all} ^{the} ^{trunk} ^{they}
bought up every bale of the ^{trunk} ^{they}
no one heard of the accident - out of which
grew the fortunes of the late Sir John Lubbock.
This was in 1836: in the same year, these pieces
were made from the new material; no firm
after another took it up, & in a few years ^{later}
the production of ^{the} ^{Alpaca} ^{shuffs} ^{became} ^{the} ^{staple} ^{manu-}
^{industry} ^{of} ^{Bradford}. It must not be
supposed that Mr. Salt originated alpaca;
Rigby & Fothergill the beautiful cloth in
use amongst the Pennsylvanians - but it was
he who practically introduced it as a
British manufacture; & a most interesting
& unique monument of his success remains
in the perfect little town upon the Aire
which bears his name. Mr. Salt resided

which bears his name.
A Philanthropic Manufacturer, Mr. Salt resided
that his work-people should live & labour under
the most favorable conditions - in pure
air & amidst fine scenery. He chose a
lovely spot in the Air Valley, backed by
fine wood ^{hills} opening into the wildest
plains: on a space enclosed between the
Midland Railway, the Leeds & Liverpool
Canal, & now here, he built his fine factory,
& about it, a town, capable of accommodating
some 5,000 persons - his work-people & their families
in excellent houses, well-built, well-drained
& ^{pleasant} ~~quite handsome~~ & cheerful. This was not all.
Schools

an ornate 27 p. 11. 11. 34 98

- Schools were provided, a ^{an ornate} pretty Chapel, Sunday Schools, Public Baths & Wash-houses, & Parks, an Institute which in its appointments might be a West-End Club; nothing was forgotten, even to allotment gardens ~~and~~ judiciously placed rows of pig-sties.

In 1853, all was completed & a unique spectacle the virgin town stood waiting to be occupied, when on his fiftieth birthday Mr. Salt led his people in to take possession, to the sound of "Jackboot & Gallantry"; amidst rejoicing ~~and~~ worthy of the occasion. Saltaire is still a fresh bright little town; even the great Factory is unscathed by smoke; & the two monster-engines bright & beautiful as a drawing-room clock are literally kept in place-cases for the delight of the public; that is to say, a huge sheet of plate glass reveals the whole great engine.

But Saltaire has been too much written about to need further eulogising; & we only linger in the immense warehouses because nowhere else perhaps could one so well see the great variety of wools used in the Worsted Manufacture, each sort having its specialty, which fits it for the production of this or the other fabric. Here are coarse, odd-looking long bales from India, packed in the well-known Indian manner; neat little square balleets from Rouen, with long like bales from Saxony, oriental looking bundles of silk from China; neat packages of Egyptian mohair, smooth merino wool as well as mohair from the Cape; Botany wool in endless quantities; wools from Australia, wools from Egypt.

But where are the home-grown wools? we ask,
anxious to compare their qualities with those
of the foreign fleeces whose merits had been
pointed out: alas, conspicuous by their
absence are the once famous long-staple
wools of Britain! a fact to be attributed
solely to the late fashion in women's
dress - the use of soft, dull fabrics in the
production of which the bright English wools
cannot be employed. Rare alpaca
stuffs are still largely made for coatings &
other purposes not affected by this fashion.
& heaps of 'queer looking stuff' brown, black
or 'whitely brown' - beautifully fine & glossy
wools by the way - lay about in heaps
ready for the sorter.

But this most curious & interesting display
of foreign wools must not tempt us to
linger: we have yet to see

Something

But enough of a question which, after all, will
pretty generally turn upon - how the individual
defines for himself the liberty of the subject
in a free state; whether it be liberty to each to
do as he likes without fear or favour, or whether
a certain obliged oblige attaches to this
high condition, making it, possibly, in-
consistent upon a man to restrain himself
~~whether~~ where the law would have restrained
him in other circumstances.
It is unnecessary to remind the reader
that throughout its career the Worsted Manufacture
has seen the cherished inarching of the State
whose ~~elicited~~ ^{usually acknowledged} has been ~~ever~~ ^{usually} ~~rewarded~~
with the most beautiful ^{see} ~~rewards~~.

We wish to ~~know~~ ^{see} something of the processes
of the Manufacture, so bestate ourselves in
the important ^{within the Borough.} ~~which~~ the courtesy of
the owners enables us to inspect.
A hoist-bear us aloft to the storey, where, as
in most Mills, the wool-sorting is carried on
for the benefit of a strong light from the roof.
We have heard rumours of a mysterious Wool
Cotter's Disease, expect to find the atmosphere
laden with evil odours; but there is nothing in
the large, bright airy room we enter to offend the
most fastidious; while the wool we see is clean
pleasant to the touch: the disease would appear
to be caused by lime used to separate the wool
from the chips ^{therefore} it ~~it~~ rarely attacks the Cotters
in the Worsted Manufacture in which Charn Hatters
are usually employed. The Wool Coter is a
skilled labourer a sort of Wool Coter in his trade.
He receives for his wages for light & easy work.
He stands at a board placed breast high before
a window, upon which a fleece is spread; with wool
gathering finger thumb he sorts the hairs into combs

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x //

of dozens different qualities.

The next process is simple enough; the wool is thrown into a large trough containing soap & hot water, where it is worked about with iron rollers: when clean, it is drawn out of the water by a "porcupine" - a cylinder set with hooked teeth. It is dried by being spread over a wire grating beneath which immense fans keep up a current of heated air.

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The wool now goes through two or three preliminary processes to prepare it for the Combing machine: first, a ~~machine~~ Cutter & Plucker, set with crooked teeth, removes the knots from the tangled apron of wool with which it is fed. Then, two or three preparing machines successively reduce the apron of wool to a sliver, a loose roll about the thickness of a child's wrist. This sliver passes into the Combing Machine - a marvel of mechanical skill, which performs gully & clog processes with human ingenuity & infinitely more than human precision. To understand what is required of such a machine it must be borne in mind that the combing of a tuft of wool is unlike the combing of one's own hair in this - that the hair is attached, a fact which gives a certain freedom of action to the comb. Some sort of attachment must be effected for the wool, since the days of hand-combing the following ready method was adopted.

The comber worked with two heated combs, one fixed to a post, the other ^{free} ~~loose~~; taking a tuft of soiled wool in his hand, he "leaked" it repeatedly into the fixed "holding" comb, ^{each} ~~every~~ time the teeth of the comb passed through the fibres, some few tangled ends remained attached. The leaking was continued until all the fibres were caught; then, with the free comb

comb, the workman dressed the loose ends
 the left by combing the fibres out repeatedly
 to their full length: ~~the end being pulled~~
~~combed~~ the fixed end was ^{then} removed - torn
 away - from the holding-comb, leaving behind
 a mass of refuse - short & broken fibres &
 impurities. This "noil" was cleared from
 the comb with a knife, & passed into the receiving
 can for the use of the clothier, who would work
 it up into hair, or other coarse wools.
 Then the ~~same~~ process was repeated, the
 dressed end being this time "lashed" into
 the holding comb, & the tangled end, in its
 turn, combed out. ~~This process was~~
 then, combed out. ~~the mass~~

Wasteful, tedious, costly, inefficient - as was
this method of preparing the wool, it obtained
until within the last thirty years; for, so
complex are the operations to be performed, it
was believed that no machine could ~~be invented~~
to supersede human labour in this department.
In 1792, however, a Frenchman named Jean-
Reilman did succeed in bringing out a
machine which performed in order the operation
of the hand-combers with an ~~infinite~~ saving of
time & material. Later, a Combing Machine
on the same general principle as this was brought
to much perfection by Messrs. Lister &
Jonisthorpe; they were judged, however, to have
trespassed on Reilman's patent - a difficulty
which W. S. Lister settled by buying this patent
for the large sum of £30,000. ~~The date of the~~

The introduction of Lister's Combing Machine marks
an epoch in the history of the Woollen Manufacture
which from that date received an enormous
impulse: the hand-combers lost their occupation
11,000 men being thrown out-of-work in the
Bradford district alone; but distressing as
~~was~~ the loss of their ^{remuneration} ~~suppings~~, it must be
a filthy & unwholesome one in the suppression
of which the community received an
ultimate benefit

Nothing, on the contrary, can be more clearly
manifested than the operations of a machine
almost as complex & complete as the Waller Press
itself.

We are supplying cans containing the roughly
prepared rolls of wool, a circular frame com-
posed of five feet across, within is a deep circular steel
toothed comb, ^{around} small combs fixed upon wheels
called gill bars, ^{moving} attending upon Reel; a pair of ^{ropes}

capable of moving within a given arc, a "porter-comb"
to supplement the nippers; a knife, ^{two} sets of receiving cans. Any adequate
description is out of the question, but we
will attempt to enumerate the steps by
which the work is performed. Feeding-
rollers supply the roughly prepared fiber, which
is carried forward by a series of gill-bars, parts
of a complex piece of mechanism known as
a Screw-gill. ^{The work known} Arrived at the nippers, these
close upon the end of the fiber, & detect a
tuft, ~~and~~. While the gill-bars return
to the feeding-rollers to carry forward another
end; now each gill-bar is furnished
with a comb, each comb passes through
the tail-end of the tuft held by the nippers
as the bars return to their place; ~~most~~
a brush with steady movement, presses
the whole of the fibres down between the teeth
of each comb. Remembering the unthrifty-
process of hand-combing, we admire the
action of these nippers; holding fast
the undressed end of the tuft, they move
until they get within the radius of the
porter-comb; ^{then} the jaws open, ^{to} they
deliver the uncombed end into the teeth
of this messenger, which carries it forward
to be operated upon by the teeth of the receiving
comb. ^{In this way, the whole of the tuft is} ~~Thus the whole of the tuft is~~ fully dressed.
The action of nippers & combs being all this
skill so gentle that there is no needless
waste of broken fibres, as ~~from~~ ⁱⁿ the "cashing"
process, the "rool" is reduced to a minimum.